

METHODS OF INCREASING POLYPEPTIDE ACCUMULATION IN PLANTS

ABSTRACT OF THE DISCLOSURE

5 The present invention provides methods and compositions directed to the
production of polypeptides in plant protein storage tissue. Methods of the invention
include methods for producing polypeptides in protein storage tissues by decreasing the
level of protease activity in the plant protein storage tissue. Compositions of the
invention include plants that are genetically modified such that the activity of one or
10 more proteases is reduced or eliminated, transformed seeds obtained from these
genetically modified plants, and sequences encoding a novel member of the VPE cysteine
protease family found in seed, ϵ -VPE. These methods and compositions find utility in
altering the nutritional or other qualities of seed, and in producing useful proteins
including pharmacological or industrial proteins.

15